ABSTRACT

A fishbone sensor (21) has a plurality of resonators resonating with sounds having different frequencies from each other and converts the vibration of each resonator into a signal corresponding to each vibration level. An amplifying circuit (22) amplifies the signal converted by the fishbone sensor (21) by a predetermined gain and supplies it to an external switch circuit (23). The external switch circuit (23) switches signal supply paths and sequentially sends supplied signals via an external antenna (24). An internal switch circuit (32) switches signal supply paths and sequentially supplies the signals sent via an internal antenna (31) to a plurality of electrodes (4a), thereby stimulating the nerves in the cochlea.